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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,271	03/14/2007	**Hubert Jean Gillessen**	15161-000001/US	9039

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EXAMINER	
PROPSTER, DANIEL M	

ART UNIT	PAPER NUMBER
1782	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,271	GILLESSEN ET AL.	
	Examiner	Art Unit	
	Daniel M. Propster	1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 19-20* is/are pending in the application.

4a) Of the above claim(s) *8-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 19-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102(b)

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Kaemmerer (U.S. Patent No. 2,925,341).

Regarding claim 1, Kaemmerer discloses an animal feed composition containing indole acetic acid (col. 2, lines 20-44). The indole acetic acid is in acid form, so it meets the applicant's definition of free IAA, which can be in free or acid form. The amount disclosed is 0.001% indole acetic acid, or 0.01 g / kg or 10,000 mcg / kg, which overlaps with the claimed range of 240 mcg / kg to 40 g / kg.

Claim Rejections - 35 USC § 103(a)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103(a) that form the basis for the rejections under this section made in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaemmerer (U.S. Patent No. 2,925,341) in view of Lissoni et al. Article.

Regarding claim 1, Kaemmerer discloses an animal feed composition container 0.001 beta-indole acetic acid (a synonym for indole acetic acid) (col. 2, lines 20-44). The 0.001% indole acetic acid is 0.01 g / kg or 10,000 mcg / kg, which is greater than 240 mcg / kg and less than 40 g as presently claimed.

Kaemmerer is silent with regards to the presence of the claimed methoxy indole acetic acid (MIAA) and hydroxy indole acetic acid (HIAA). However, Lissoni et al. discloses that 5-methoxyindole acetic acid (5-MIAA) has anti-cancer properties. In addition, as person having ordinary skill in the art would know that because the research disclosed in Lissoni et al. is phase II, there would have been phase I with animal trials verifying that the same effect would occur on non-human animals before human tests of phase II would be allowed. Therefore, at the time of invention, it would have been obvious to a person having ordinary skill in the art to modify Kaemmerer to have the indole acetic acid be in the form of 5-methoxyindole acetic acid, one of the claimed forms of MIAA, in order to help prevent cancer in the animals being fed.

Claims 3 and 7 are rejected under 35 USC § 103(a) as being unpatentable over Kaemmerer (U.S. Patent No. 2,925,341) in view of Hsieh et al. (U.S. Patent Pub. No. 2003/0195244).

The disclosure of Kaemmerer is discussed above.

Regarding claim 3, Kaemmerer does not explicitly disclose using between 100 and 1000 mg / kg of IAA. However, Hsieh et al. discloses that an effective amount of

indole compounds to be taken orally (or otherwise) of indole compositions from about 0.1 mg / kg to about 1000 mg / kg, which overlaps with the claimed range of 100 mg / kg to 1000 mg / kg (para. 0107). When the claimed ranges overlap or lie inside ranges disclosed by the prior art a prima facie case of obviousness exists (MPEP § 2144.05).

At the time of invention, it would have been obvious to a person having ordinary skill in the art to modify Kaemmerer at least about 0.1 mg/kg to about 1000 mg/kg, in order to ensure an effective amount of IAA is present in the feed.

Regarding claim 5, Kaemmerer is silent with regards to the free IAA disclosed having an aromatic ring substituted on one or more of the 4, 5, 6, 7 positions with methyl, amino, nitro, fluoride, chloride, bromide or iodide. However, Hsieh et al. discloses indole derivatives used to treat cancer and disease symptom such as targeting the microtubule system (tubulin polymerization/ depolymerization) or others using indole compounds (para. 0005-0006). The compounds disclosed have having an aromatic ring substituted on one or more of the 4, 5, 6, 7 positions with nitro or CH3 (methyl) or a halogen (fluoride, chloride, bromide or iodide) (para. 0007-0009).

At the time of invention, it would have been obvious to a person having ordinary skill in the art to modify Kaemmerer to include IAA derivatives that having an aromatic ring substituted with one or more of the 4, 5, 6, 7 positions with methyl, amino, nitro, fluoride, chloride, bromide or iodide, in order to help treat symptoms of diseases and cancer in the animals being fed (para. 0002-0006 and 0100).

Regarding claim 6, Kaemmerer does not explicitly disclose having the feed composition in at least one of pellet, meal, grains, extruded or expanded grains, tablets,

powder and bolus form. However, Hsieh et al. discloses that the IAA derivative can be given in a tablet form (para. 0113). It is well known in the art that the feed can be in tablet form, as evidenced by Hsieh et al., therefore, at the time of invention, it would have been obvious to a person having ordinary skill in the art that the feed could be in tablet form. In addition, a person having ordinary skill in the art would know that animals feeds are often formed into pellet, meal, grains, extruded or expanded grains, tablets, powder and bolus form.

Regarding claim 7, Kaemmerer discloses administering a feed with an effective amount of IAA to improve feed efficiency and feed conversion rate (col. 2, lines 54-70). As discussed above, Kaemmerer in view of Hsieh et al. discloses that an effective amount of indole compounds to be taken orally of indole compositions from about 0.1 mg (100 mcg) / kg to about 1000 mg (1,000,000 mcg) / kg, which overlaps with the claimed range of 25 mcg / kg to 1000 mcg / kg.

Claims 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaemmerer (U.S. Patent No. 2,925,341) in view of Hsieh et al. (U.S. Patent Pub. No. 2003/0195244) in further view of Lissoni et al. Article.

The disclosure of Kaemmerer In view of Hsieh et al. is discussed above.

Regarding claim 19, Kaemmerer In view of Hsieh et al. is silent with regards to the IAA being a derivative from the claimed group, which includes 5-methoxyindole acetic acid (5-MIAA). However, Lissoni et al. discloses that 5-MIAA has anti-cancer properties. In addition, as person having ordinary skill in the art would know that because the research disclosed in Lissoni et al. is phase II, there would have been

phase I with animal trials verifying that the same effect would occur on non-human animals before human tests of phase II would be allowed. Therefore, at the time of invention, it would have been obvious to a person having ordinary skill in the art to modify Kaemmerer to have the indole acetic acid be in the form of 5-methoxyindole acetic acid, one of the claimed forms of MIAA, in order to help prevent cancer in the animals being fed.

Claims 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaemmerer (U.S. Patent No. 2,925,341) in view of Hsieh et al. (U.S. Patent Pub. No. 2003/0195244) in further view of Lissoni et al. Article and Christensen et al. (Swedish Patent No. SE 8200724).

For citation purposes for Christensen et al. the attached Derwent English abstract is used.

Regarding claims 20, the disclosure of Kaemmerer In view of Hsieh et al. in further view of Lissoni et al. Article is discussed above. Kaemmerer In view of Hsieh et al. in further view of Lissoni et al. Article is silent with regards to using enzymes. However, Christensen et al. discloses treating food with naturally occur glucosidase to increase maltose content and reduce bulk of the feed (abstract).

At the time of invention, it would have been obvious to a person having ordinary skill in the art to modify Kaemmerer In view of Hsieh et al. in further view of Lissoni et al. Article to include enzymes such as glucosidase in order to reduce feed bulk (and depending on ingredients, increase maltose content).

Response to Argument

Applicant's arguments filed December 16, 2010 have been fully considered but they are not persuasive. Applicant modified claim 5 in view of a rejection under 35 U.S.C. 112, second paragraph. The rejection of claim 5 under 35 U.S.C. 112, second paragraph is withdrawn.

Applicant states with regards to claims 1, 3, 5-7, and 19-20 should be limited to "free IAA", which applicant defines in the specification as IAA in its acid or free. Applicant argues that the compound described in column 2 of Kaemmerer is an auxin, otherwise known as conjugated IAA. As described in paragraph [0009] of the specification, the term "free IAA" is used to indicate that the free IAA is in the free or acid form, whereas the term "conjugated IAA" refers to IAA that is conjugated via ester linkages or via amide linkages. Therefore, Applicant states, Kaemmerer does not teach or suggest "[a] non-human animal feed composition comprising free indole acetic acid (IAA)" as recited in claim 1, or "administering an amount of a nonhuman animal feed including free indole acetic acid (IAA)" as recited in claim 7.

However, Claims 1, 3, 6-7 and 19-20 all use the term "free IAA or its derivatives", which applicant did not limit to any particular derivatives, or limits the claims are to specific IAA derivatives. Therefore, only the language of claim 5 is limited to (slightly modified) free IAA as defined by the applicant, all other claims are not so limited and

have been given their broadest, most reasonable interpretation, which includes the derivatives as disclosed in the applied prior art.

Applicant argues that the compound described in column 2 of Kaemmerer is an auxin otherwise known as conjugated IAA.

However, auxin refers to a broad group of plant growth substances and morphogens that include the compound IAA (free or acid form). Nowhere in Kaemmerer is the term auxin limited to conjugated IAA, nor would it be so limited by a person having ordinary skill in the art. In addition, regardless of whether it's disclosed by the term auxin, Kaemmerer specifically lists the compound IAA in its acid form in the table of example 2, which meets applicant's definition of free IAA (free = acid or free form) (col. 2, lines 26-44).

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel M. Propster whose telephone number is (571)270-5990. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on (571)272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Angela Ortiz/
Supervisory Patent Examiner, Art Unit 1798

/D. M. P./
Examiner, Art Unit 1782